



MILL AND LOW-ALLOY STEEL

NON ALLOY AND FINE GRAIN STEELS WIRE AND FLUX FOR SAW

XUN-503 Agglomerated Flux for S.A. Welding

Specification:EN760AWS A5.17/5.23

ClassificationsSA AR 1 88 AC H5F48A0-EL8

Characteristics:

XUN-503 is an agglomerated aluminate-rutile type flux.

Metallurgical behavior: Low silicon pick-up and high manganese pick up is obtained.

Grain size: 10 to 60 meshes.

Basicity: 0.8(BIIW).

Slag removal is excellent especially in flat and horizontal fillet welding. Bead appearance is beautiful, welding defects such as pits and porosity scarcely occur.

It can therefore be combined with wire electrodes of low Mn content.

The high weld metal toughness can be obtained using the GLES-31 wire

It can travel at relatively welding speed.

Slag detachability is good for butt and fillet (horizontal fillet) of welding at high speed.

The flux has low moisture pick-up and granular stability. Flux shall be capable of meeting the applied requirements. As the bulk density is low, so is the consumption rate.

Damp flux should be redriey at 300-350℃ for 2 hours.

Main Constituents (%)

SiO ₂ +TiO ₂	Al ₂ O ₃ +MnO	CaF ₂
25	55	15

Mechanical properties of deposited metal (AWS A5.17/A5.23)

Wire	PWHT	Yield strength (MPa)	Tensile strength (MPa)	Elongation (%)	Charpy V notch impact strength (J)
					-30℃
GLES-31	AW	≥420	530-640	≥22	≥40

Chemical composition of deposited metal (%)

Wire	C	Si	Mn
GLES-31	0.05~0.1	0.35~0.50	1.4~1.6

Applications:

It is suited to twin-wire, tandem and multi-wire welding at high speeds for construction, small pressure vessel (such as small LPG store cylinder), thin wall thickness pipeline.

The welding speed is more than 100cm/min.

XUN-503 is useful for welding steel plate of less than 20mm in single pass and limited pass.

It can be welded with DC+ or AC

Material to be welded

General structural steels

Mild steels

490MPa high strength steels

Pressure vessel steels

H I H II

17Mn4 19Mn5